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The Rural District Council of Godstone

(PUBLIC HEALTH DEPARTMENT)

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR 1937

W. & G. GODWIN
CAXTON HOUSE, OXTED

1938

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Public Health Officers of the Local Authority.

*Medical Officer of Health :
W. H. BUTCHER, M.A., D.M., D.P.H., Barrister-at-Law, Surgeon Commander R.N.V.R. (Also Medical Officer to the Clerk's Croft Institution and District Medical Officer and Public Vaccinator of the S.E.18 District of the Surrey County Council.)

Deputy Medical Officer of Health (part time) :
P. C. V. BENT, M.R.C.S., L.R.C.P.

Health Department.

*Sanitary Inspector :
C. F. PAYNE, Sanitary Inspector's Certificate and Meat Inspector's Certificate, Royal Sanitary Institute. (Also Superintendent of Refuse Disposal).

Assistant Sanitary Inspector :
A. H. SEWELL, Sanitary Inspector's Certificate and Meat Inspector's Certificate, Royal Sanitary Institute.

Office Clerk ; R. MIDDLETON

Godstone District Hospital (Infectious Diseases).

Consulting Surgeon :
G. C. WELLISH, M.Ch., F.R.C.S., (Eng.)

Matron :
J. D. MCLAY SMITH, S.R.N., R.F.N., S.C.M., M.B.C.N.

Staff Nurses :
D. PASSBY, R.F.N.
D. E. WORKMAN (appointed May 15th)

Assistant Nurses :
P. BRADFORD
E. FERGUSON, R.F.N. (resigned 30th April)
S. BARBOUR (appointed 3rd May)
W. ASHFORD (appointed 20th May)

Probationers :
F. SHUTTLEWORTH
F. LUCAS (resigned 27th April)
H. M. YEO (appointed 10th May)

Hospital Porter : G. ALLEN

* Contribution to salary made by Exchequer Grants.

To the Chairm$\overset{e}{\text{a}}$n and Members of the Public Health and of the District Hospital Committees.

I have the honour to submit herewith my tenth Annual Report. I wish to express my sincere thanks to the Chairmen and Members of these Committees for their support and consideration through the year. As in previous years the Chairman of the Public Health Committee, Mr. W. G. Coles, has given without stint of his time and experience. Two events worthy of special notice have occurred during the year. The first was the coming into operation on the 1st October of the Public Health Act, 1936, which reduces to 347 sections in one Act legislation formerly distributed over some 600 sections of 60 Acts and though a consolidating Act introduces a number of important amendments of the law. The second was the approval by the Minister of Health of the counter proposals of the Godstone Rural District Council under the Local Government Act, 1929, regarding the Council's Hospital (Infectious Diseases). This marks the culmination of nearly 5 years of arduous negotiations throughout which the Chairman of the Hospital Committee, Mr. A. W. Bruce-Roberts, has been a tower of strength.

At the end of the year negotiations were proceeding regarding the formation of a Joint Hospital Board to administer the Hospital.

I beg to acknowledge the helpful and conscientious service of all members of the Health Department and the co-operation of the Chief Officers of the Council.

I am,

Your obedient servant,

W. HERBERT BUTCHER,

1st April, 1938. *Medical Officer of Health.*

COUNCIL OFFICES,
OXTED.

1st April, 1938.

To the Rural District Council of Godstone, the Local Sanitary Authority.

I beg to submit herewith the Annual Health Report for Godstone for the year 1937. The Report includes :—

(1) The Annual Report on the health and sanitary condition of the District.

(2) The Annual Report of the District Hospital (Infectious Diseases).

The Report is written in accordance with the requirements of the Ministry of Health.

SECTION 1.

Statistics of the Area.

Area in acres, 52,591,

Resident Population, as estimated by the Registrar-General for the mid-year 1937, 26,510.

Number of inhabited houses at the end of 1937 according to the rate books, 7489.

Rateable value, £279,888.

Sum represented by a penny rate, £1,079 3s. 3d.

TABLE 1.

Parishes	Area in Acres	Rateable Value 31st December, 1937	Population at Census 1931 of Parishes as reconstituted
		£	
Bletchingley	5822	23,585	2465
Burstow	3377	15,439	1905
Chelsham	2707	11,244	1143
Crowhurst	2119	2,107	303
Godstone	5715	31,265	3153
Horne	3932	7,741	842
Limpsfield	4673	45,749	3167
Lingfield	9239	48,509	5214
Nutfield	4760	17,446	2079
Oxted	3659	59,251	3799
Tandridge	3295	7,756	740
Tatsfield	1304	8,294	925
Titsey	1989	1,508	163
TOTALS ...	52591	279,888	25908

Vital Statistics.

TABLE 2.

		Total	M	F
Live Births	Legitimate	347	189	158
	Illegitimate	9	6	3

Birth Rate per 1,000 of estimated resident population =13.4

		Total	M	F
Still Birth	Legitimate	11	5	6
	Illegitimate	—	—	—

Rate per 1,000 total births =30

Deaths: male, 149; female, 139; total 288

Death rate per 1,000 of estimated resident population =10.8

Death rate corrected for comparison with that of the County as a whole =9.39

Deaths from diseases and accidents of pregnancy and childbirth: from sepsis, Nil; from other causes, 1

Death Rate of infants under one year of age :

Actual number	Legitimate	12
	Illegitimate	0

All infants per 1,000 live births=33
Legitimate infants per 1,000 legitimate live births=34
Illegitimate infants per 1,000 illegitimate live births=0

Deaths from measles (all ages)	0
,, ,, whooping cough (all ages)	1
,, ,, diarrhœa (under 2 years of age) ...	1

Causes of Death, 1937.

TABLE 3.

	M.	F.
Syphilis	0	1
Influenza	1	1
Tuberculosis of respiratory system	4	5
Other tuberculosis	1	0
Cancer, malignant disease	18	29
Diabetes	1	0
Cerebral hæmorrhage, &c.	6	11
Heart Disease	56	40
Aneurysm	1	1
Other circulatory diseases	10	4
Bronchitis	6	2
Pneumonia (all forms)	4	6
Other respiratory diseases	1	0
Peptic ulcer	3	0
Digestive diseases	4	2
Acute and chronic nephritis	0	3
Liver disease (not cirrhosis)	0	1
Cirrhosis of liver	2	0
Congenital debility, premature birth, malformations, etc.	6	4
Senility	1	6
Suicide	1	6
Other violence	10	4
Puerperal diseases (not puerperal sepsis)	0	1
Other defined diseases	9	16

TABLE 4.

Birth-rates, Death-rates, Analysis of Mortality, Maternal Death-rates, and Case-rates for certain Infectious Diseases in the year 1937. England and Wales, London, 125 Great Towns and 148 Smaller Towns.

(Provisional Figures based on Weekly and Quarterly Returns)

	Godstone R.D.C.	England and Wales	125 County Boro's and Great Towns incl. London	148 Smaller Towns (Resident Populations 25,000 to 50,000 at 1931 Census)	London Administrative County
	Rates per 1,000 Population				
BIRTHS—					
Live	13.4	14.9	14.9	15.3	13.3
Still	0.4	0.60	0.67	0 64	0.54
DEATHS—					
All Causes	9.3	12.4	12.5	11.9	12.3
Typhoid and Paratyphoid fever ...	—	0.00	0.01	0.00	0.00
Smallpox	—	—	—	—	—
Measles	—	0.02	0.03	0.02	0.01
Scarlet Fever	—	0.01	0.01	0.01	0.01
Whooping Cough ...	0.03	0.04	0.04	0.03	0.06
Diphtheria	—	0.07	0.08	0.05	0.05
Influenza	0.06	0.45	0.39	0.42	0.38
Violence	0.80	0.54	0.45	0.42	0.51
NOTIFICATIONS—					
Smallpox	—	0.00	—	0.00	—
Scarlet fever	0.48	2.33	2.56	2.42	2.09
Diphtheria	0.18	1.49	1.81	1.38	1.93
Enteric fever	0.18	0.05	0.06	0.04	0.05
Erysipelas	0.18	0.37	0.43	0.34	0.44
Pneumonia	0.37	1.36	1.58	1.20	1.18
	Rates per 1,000 Live Births				
Deaths under 1 year of age	34	58	62	55	60
Deaths from Diarrhœa and Enteritis under 2 years of age	2.8	5.8	7.9	3.2	12.0
MATERNAL MORTALITY—					
Puerperal Sepsis ...	—	0.97	Not	available	
Others	2.8	2.26			
Total	2.8	3.23			
	Rates per 1,000 Total Births (i.e. Live and Still)				
MATERNAL MORTALITY—					
Puerperal Sepsis ...	—	0.94	Not	available	
Others	2.7	2.17			
Total	2.7	3.11			
NOTIFICATIONS—					
Puerperal fever ...	—	13.93	17.59	11.52	4.15
Puerperal pyrexia ...	8.1				14.34

The Birth Rate.

There is the prospect that after the middle of the century the population of our country will decline. If the fall be brought about by causes either in themselves temporary or capable at least of arrest or removal, it would be of less concern for we could face with equanimity a future population of some 30 million or so, but is the prospective decline either temporary or remediable ? Or is it a mathematical certainty that once begun it will progressively increase like a rolling snowball ? The attempt to answer these two questions is vital for on a timely answer may depend the survival of the Nation.

It should be recalled that the prospective decline in the birth rate is not confined to this country, but is beginning to appear in the statistics of the other nations of Western Europe. In broad general terms the present diminution in the number of births can be viewed as being due to three factors (1) deliberate artificial limitation or (2) diminished racial fertility or (3) a combination of the two.

(1) Deliberate artificial limitation. Advisedly I use the words "due to three factors" because artificial limitation, patent and obvious as is its extent, is merely a method by which parents avoid bearing children, not the cause of their conduct. A variety of causes have been adduced why artificial limitation is practised. They may be placed in two groups.

(a) The "Convenience" factor. It is alleged that small houses, the difficulty of getting domestic help, the increased facilities generally available for "enjoying" life, the wider outlook of women, are causes. Child birth, it is held, is a primitive function likely to become disregarded with the advance of civilization.

(b) The "anxiety" factor. The struggle for existence, the lot of the human species in common with all animals, is necessarily accompanied by conditions giving rise to fear or anxiety. It is only rarely either for the race or for the individual that the environment becomes so favourable that the causes for anxiety are reduced to the minimum. In retrospect, at any rate, in Europe the nineteenth century appears to have been such a period. By contrast, since the beginning of the present century the grounds for anxiety have grown. In industry competition has become more severe. The white races are no longer supreme in industrial production. The problem of the displacement of labour by mechanisation remains unsolved. In international politics the reasons for fear are surely apparent, while the sad events in Europe during the last quarter of a century have been experienced by all.

Parents may well question the wisdom or the humanity of bringing a new being into such conditions of insecurity. Conversely it can be truthfully said that, notwithstanding the turmoil of these years, the standard of material comfort in Europe is higher—wages better, hours of work shorter, health improved, education wider, life fuller and longer. It is a question whether the material improvements counterbalance the unfavourable psychological factors of the environment.

(2) Diminished racial fertility. I know that if I suggest that this may be a factor in the decline of the birth rate I shall meet with ridicule from biologists. That within some 50 years, biologically a mere second of time, the super-abundance of sexual cells in the individual should have become relatively inert, certainly appears improbable. Nevertheless mind reacts on body and in civilized man, with his complex psychological reactions, propagation may no longer remain the simple physiological process of the uncivilized races and of the lower animals. A psychological factor may intervene, a psychological factor on which anxiety would exercise an influence.

Finally there is another factor that may affect fertility, namely the increasing age of the races of Western Europe. These races are old nations ; their blood has remained unmixed with new blood since the Saxons and Norsemen emerged from the Northern mists on to the sea-board of Europe and the tribes of the North and of the North-East came forth from forest or steppe, overwhelming the Roman Empire. Perhaps these nations are growing senile and with senescence the fertility of the race like that of the individual may decline. Mere hypotheses I grant.

They will remain hypotheses till our ignorance is relieved for we have no knowledge of the proportion of wives marrying under the age of 40 who remain childless. Much less do we know why they are childless. Do they not desire children and so avoid them ? Or do they desire children and are unable to produce them owing to failure in one or other partner. We have information, and shall have more under the Population (Statistics) Act, 1938, about the births that occur, but very little about those that do not. Meanwhile public health can educate the public regarding the importance of investigation into the causes of the decline and secondly can by still further improving the health of the nation save more young lives. For every young life saved is now, more than ever before, of material value to the race.

Death Rate.

The general death rate has remained satisfactory. It must, however, be remembered that the general death rate is no longer altogether a satisfactory index of healthiness. It measures principally those diseases which cause death among the aged. An epidemic of infectious disease, say diphtheria, affecting mainly young children, will have little influence on the general death rate, but 5 deaths from diphtheria in young children is more serious than 50 deaths from some non-preventable cause among the aged and reflects much more seriously on the efficiency of public health.

One death occured during the year as the result of fibrosis of the lungs. The deceased had been engaged in industrial employment. The condition had been di~~o~~agn~~i~~osed during life by the Tuberculosis Officer, Dr. A. H. Campbell, and the industrial environment is being investigated by H.M. Inspector of Factories.

The importance of the publication at the earliest moment of the Annual Health Report is rightly emphasized by the Minister of Health. Though the report may be in the printer's hands, obviously the printing cannot be completed till the statistics relating to population, deaths, etc., are received from the Registrar General. For 1936 these were received on 25th May, 1937.

SECTION 2.

General Provision of Health Services for the Area.

Detailed information was given in the Annual Report for 1930 regarding health services provided for the area and subsequent changes have been noted in later reports.

Ambulance Facilities. During the year there was raised the question of the provision for the parish of Lingfield and the neighbourhood of a service for the removal of the sick to hospitals and to such places as Tuberculosis Dispensaries for diagnosis. Enquiries were set on foot regarding the extent to which such a service might be used. At the end of the year they had not been completed. Apparently at present neither of the local First Aid organisations, the British Red Cross Society or the Order of St. John, proposes to supply an ambulance service for Lingfield and its vicinity.

Legislation.

The following Acts of Parliament, Local Government Orders, Memoranda and Circular letters issued by Government Departments in regard to public health were received by the Health Department during the year, 1937.

TABLE 5.

Housing Act, 1936.

The Public Health (Ophthalmia Neonatorum) Amendment Regulations 1937, dated 21st January, 1937, made by the Minister of Health.

Circular 1596 of the Minister of Health, Notification and Treatment of Ophthalmia Neonatorum.

Circular 1591 of the Minister of Health.

The Housing Act (Form of Orders and Notices) Regulations, 1937, dated 25th January, 1937, made by the Minister of Health.

The Housing Act (Overcrowding and miscellaneous forms) Regulations, 1937, dated 29th January, 1937, made by the Minister of Health.

Circular No. 1597 of the Minister of Health, The Public Health Act, 1936.

Circular 1600 of the Minister of Health, Public Health Act, 1936, Movable Dwellings.

Milk Policy, presented by Command of His Majesty, July, 1936.

Circular 1621 of the Minister of Health, Prevention of Blindness.

Circular 1643 of the Minister of Health, Local Health Services.

Circular 1643b of the Minister of Health, Local Health Services.

Circular 1651 of the Minister of Health, Meat Inspection.

Memorandum 62a—Foods—of the Minister of Health—Meat Inspection.

Circular 1650 of the Minister of Health, as to the contents and arrangement of the Annual Reports of the Medical Officers of Health for 1937.

Memorandum on the powers of Local Authorities under the Physical Training and Recreation Act, 1937, (National Advisory Council for Physical Training and Recreation).

SECTION 3.

Sanitary Circumstances of the Area.

Rainfall. By the courtesy of the East Surrey Water Company the following figures relating to the rainfall are available.

TABLE 6.

	Westwood	Kent Hatch
January ...	5.67	5.45
February ...	4.99	4.70
March	3.74	3.20
April	3.31	3.20
May	2.16	2.30
June	2.29	2.30
July	.71	.90
August	2.26	1.18
September ...	1.99	1.90
October ...	3.17	3.20
November ...	1,91	1.70
December ...	5.04	4.70
Totals	37.24	34.73

Water Supply. The matter of water supplies received considerable attention during the year, and quite rightly too. Familiarity breeds contempt and we are all so familiar nowadays with pure water supplies that we are apt to forget that it is only with unremitting attention that their purity can be ensured and maintained.

The Rural District of Godstone is supplied by two statutory water undertakings, the Metropolitan Water Board and the East Surrey Water Co. The former serves the parish of Tatsfield, the latter the remainder of the District.

The Metropolitan Water Board. Westerham Hill Well. The Metropolitan Water Board derives its water from this well. It is situated on the lower slope of the North Downs in the chalk near its junction with the gault. The matter of the protection of this well engaged the attention of the Local Authority as long ago as June, 1933, when the Local Authority refused to sanction extensive building development on the Downland above the well partly because of the absence of a main sewerage scheme. In addition in conjuction with the Surrey County Council 55 acres of downland in the same situation were secured as part of the "green belt" around Greater London. The Metropolitan Water Board has not acquired any land as a zone of protection to the Well.

After an unblemished record of over 30 years, indications were found in 1934 that the purity of the water in the well was falling away from its former high standard. In consequence sterilisation of the water was and is being carried out by means of chloramine, a necessary step in view of the results of bacteriological examinations. The matter of the pollution of the well was the subject of a meeting held on the 26th January between the officers of the Local Authority, those of the Metropolitan Water Board and Mr. G. Ewart Rhodes, M.I.C.E., one of the Engineering Inspectors of the Ministry of Health. A further meeting was held between the officers of the Local Authority and of the Metropolitan Water Board in London on the 28th October. At these meetings the whole position was discussed.

The extent of the gathering ground or catchment area of a well, particularly of one in chalk, is difficult precisely to define. One may speculate, but the underground waters that feed a well are hidden from our eyes and so from accurate observation—apart altogether from the question of an impermeable formation overlying the water bearing strata. Nevertheless with this reservation it seems not unreasonable in this case to state that the catchment area is dependent on the surface-conformation of the Chalk-tract which divides the Chalk into a broad water-area on the north and a very narrow one on the south. " This division is formed by the dominant ridge of the North Downs, the highest part of the Chalk, from which northward water takes its course down the broad, comparitively gentle dip-slope, whilst southward it follows the short sharp slope of the escarpment."*

The catchment area of the well would thus be limited to the ridge of the Downs, a conclusion which is supported by the history of the well itself for no pollution took place until dwellings were erected on the short sharp southern slope of the Downs and adjacent to the well, notwithstanding that for many years there has existed on the gentle northern dip-slope the village of Tatsfield without main sewerage. The lateral limits of the catchment area are still more difficult to define. Some 600 yards away laterally houses with cesspools which are rarely if ever emptied and of whose overflow I have no knowledge have existed throughout the life of the well; and it was only in 1934 that the well has shewed signs of pollution.

Because water undergoes only a slight purification during its passage through the fissures of the chalk, wells in the chalk are in a category of their own as regards the special protection necessary to ensure the purity of their supplies. Adequately to protect this well I am of opinion that further building development should not

*Memoirs of the Geological Survey of England and Wales. Water Supply of Kent: *Whittaker.*

take place unless main sewerage is provided. The extent of the area requiring this protection must be judged from my remarks above. The matter was discussed in detail in a Memorandum to the Local Authority dated the 4th February, 1937. The sterilisation of water by chlorine, chloramine or other chemical process must be regarded within the limits allowed by taste as a safeguard against minor degrees of pollution not as an excuse for massive pollution against which within such limits it might not necessarily be a protection.

East Surrey Water Co. This Company derives its supply from five different sources which may be considered in two groups.

(1) Sources in the Greensand.

(*a*) Westwood Well. This is a well some 450 feet deep in the Lower Greensand. Bacteriological reports extending from 1932 which have been shewn me shew a pure water. The water in the past has been examined at quarterly intervals. Towards the end of 1937 it was examined at fortnightly intervals and finally at weekly intervals. The Company propose within 18 months to subject this water to chlorine sterilisation.

(*b*) The Pains Hill Springs. These are derived from the Lower Greensand at its junction with the Gault. Bacteriological reports extending from 1932 have been shewn me which shew a pure water. The water in the past has been examined at monthly intervals, though from the end of 1937 it has been done at weekly intervals. The Company propose within 18 months to subject this water to sterilisation either by means of ozone or chlorine.

(2) Sources in the chalk. All are wells situated at (a) Leatherhead, (b) Kenley, (c) Purley (and Smitham). These sources are subject to slight intermittent pollution according to examinations which I have seen. The waters are all subjected to the same treatment, namely:—

(1) Lime softening by Clark's process for at least 10 hours.
(2) Chlorine for at least 10 hours.
(3) Dechlorination with sulphur dioxide.

Twice daily the presence of free chlorine is checked before dechlorination. Each of these treated waters before distribution is examined bacteriologically once a month and the reports shewn to me shew a pure water. The raw waters are also examined bacteriologically once a month. No daily examination of the raw water is done. Such an examination would, in my opinion, be of some value in revealing the seasonal variation in the pollution. The parishes of Limpsfield and Oxted are supplied principally from the Greensand sources. The rest of the District receives its water from all the above wells in the chalk.

In view of the increased incidence of typhoid fever in the southern counties during the last eighteen months the question of the safeguarding of the public water supplies required in my opinion further investigations. Since there are wells supplying the District situated outside the latter, it was necessary to have the co-operation of the Medical Officers of Health concerned. On the 17th November, 1937, I communicated with the following, suggesting a conference at an early opportunity :—

Dr. T. H. Bingham, Medical Officer of Health, Borough of Reigate.

Dr. C. Ive, Medical Officer of Health, Borough of Epsom, Urban Districts of Leatherhead and Dorking, and the Rural District of Dorking and Horley.

Dr. F. R. Carroll, Medical Officer of Health Urban District of Caterham and Warlingham.

Dr. F. R. Edbrooke, Medical Officer of Health Urban District of Coulsdon and Purley.

These officers agreed and 3 meetings were held during 1937, the first at the Purley Town Hall on the 24th November, the second at the offices of the East Surrey Water Co., when the matter was fully discussed with Mr. A. E. Cornewall Walker, Joint Managing Director of the Company, and the third on the 3rd December, when the various sources of the Company's supplies were visited.

On general principles I consider that a daily bacteriological examination of the water as distributed to the public is the ideal. In the case of the above mentioned wells of the East Surrey Water Co. situated at Leatherhead, Kenley and Purley, in view of the defence provided by (1) lime softening by Clark's process, (2) chlorine treatment for at least 10 hours, and in view of the checking twice daily of the free chlorine contained before dechlorination, such daily bacteriological examinations may be omitted. The whole matter was the subject of a Memorandum to the Local Authority dated 1st December, 1937, in which I advised :—

(1) Regarding the Metropolitan Water Board that the Local Authority ask the Board to supply particulars of the treatment methods in use at the Westerham Hill Well.

(2) Regarding the East Surrey Water Co. that the Local Authority enquire of the Company whether the latter will agree to subject to bacteriological examination daily samples from the Westwood and from the Pain's Hill supplies.

(3) That the Local Authority enquire of both Water Undertakings whether they would inform the Medical Officers of Health of any circumstances as ascertained by water examination or otherwise affecting or likely to affect the purity of the water supplies.

(4) That co-operation be evolved with the surrounding Authorities regarding the times at which analyses are taken by the Local Authorities of the waters common to the Authorities concerned.

These recommendations were adopted by the Local Authority. At the close of the year further progress in the matter was pending, except as regarding (4), on which full agreement was reached with the Medical Officers of the other Authorities.

As the local Sanitary Authority, the Local Authority must have knowledge through their responsible officer, the Medical Officer of Health, of the conditions under which water is supplied to this District, of its purity and of any factors likely to affect the latter.*

Rivers, Streams and Sewerage. During the year the Local Authority made further progress in its well-considered scheme for sewering the populous parts of the area. In February the Minister of Health approved the proposals for the sewering of parts of the Smallfield area in the parish of Burstow. The work was begun, and under the direction of the Engineer and Surveyor, Mr. Stanley Easter, was well advanced at the end of the year. On the 17th August a Ministry of Health Enquiry was held at the Village Hall, South Nutfield, regarding the Local Authority's proposal for the sale of the obsolete Sewage Disposal Works at South Nutfield.

The Local Authority's case was presented, in the absence on leave of the Clerk, Mr. Christopher Phillips, by the Deputy Clerk, Mr. F. W. Walpole, while the Engineer and Surveyor, Mr. Stanley Easter, gave evidence. Subsequently the Minister of Health sanctioned the sale of the land in question. Temporary sewage disposal works were placed in use and are working satisfactorily.

Certain facts must be borne in mind in considering the methods of disposal of sewage matter, whether excreta or the equally offensive bath or sink wastes. In close-built areas there is only one adequate method, namely main sewerage. Initially it is expensive, but there is no easy or cheap way of removing sewage. Some have mooted a system of cesspool cleansing as an alternative. Such a system to be effective would have to be done by, and at the cost of, the Local Authority, for most private householders could not bear the cost. When it is considered that the average cesspool is of about 1,000 gallons capacity and that a house with bath, wash-hand basins, etc., uses about 50 gallons per day per head, even small dwellings use 20 or 30 gallons, it will be realised that such a system, if it be efficiently carried out and not merely used as an occasional palliative and popular placebo, would be most costly to maintain.

* Examinations of the waters as supplied to the public by both water undertakings shew high degrees of purity.

If cesspools are merely emptied to abate the worse nuisance or to remove the solid accumulation of years, then a system of cesspool cleansing is an ineffective palliative of improper sanitary conditions and not the means by which a satisfactory sanitary environment is maintained.

As regards the less populous parts of the district, the disposal of sewage without the provision of main sewerage should be capable of being carried out without the creation of nuisances or of conditions prejudicial to health. Firstly all the sewage matter, whether excreta or bath or sink waste, is led into a receptacle. It is immaterial whether such receptacle be styled a cesspool, cesspit or septic tank. Whatever its name, in that receptacle the sewage putrifies. From that receptacle the sewage should at appropriate intervals be distributed over the land according to the recognised methods of agriculture or horticulture so that the nitrifying organisms of the soil are able to break down the organic matter of the sewage to simpler compounds. Such a system requires care and labour and a sufficiency of land, but it returns to the soil some of the fertilising properties removed from it and if carefully done it does not give rise to nuisances or to conditions prejudicial to health. For cesspools to leak or to overflow is illegal, reveals a low sanitary conscience and is dangerous to public health. As an alternative, legally it is permitted to discharge the overflow of such receptacle—its name is immaterial—through a properly constructed filter. Such filters if properly constructed to start with, with proper arrangements for periodic dosing and adequate distribution, with periodic inspection and renewal, can be permitted. Unfortunately in sanitary matters out of sight is out of mind. A private filter bed will no more work indefinitely without proper treatment or attention than will a filter at the Local Authority's Sewage Disposal Works. Persons who have such filters installed must realise this and must be prepared to incur periodic labour and expense to maintain their systems efficient. To discharge an imperfectly purified effluent from a filter is the same as allowing the receptacle, term it cesspool or septic tank as you like, directly to overflow.

Lastly I come to the pail closet. If there be sufficient land a pail closet properly worked is entirely unobjectionable and it is really quite simple to work a pail closet properly provided the householder supplies an adequate amount of absorbent material such as dry earth, cinders, sawdust. I am well aware that the ordinary pail closet, because householders do not supply such material, is a smelling unsightly contraption. It must be recalled also that the pail closet merely receives excreta. A proper cesspool should be provided to receive sink or bath wastes and its contents must be disposed of with the same care as those of any other cesspool.

During the year careful watch was kept over the pollution by sewage of streams, water courses and ditches and the pollution discovered was remedied as far as local conditions allowed. In this connection I must mention particularly the village of Outwood and certain portions of the parish of Tandridge. The former is borne in mind by the Local Authority in connection with its sewerage scheme while the latter was the subject of a memorandum of the Medical Officer of Health to the Local Authority dated 8th July. The conditions existing in both can be remedied satisfactorily by main sewerage.

Analyses of the effluents from the Sewage Disposal Works of the Local Authority were carried out by the Counties Public Health Laboratories at frequent intervals and were found always satisfactory. These works are administered by the Department of the Engineer and Surveyor.

Closet Accommodation. Seven pail closets were converted to W.C.s.

Public Cleansing.

(1) Refuse Disposal.

TABLE 7.

Parishes	Frequency of Collection	Method of Collection
Bletchingley ...	Weekly	Council's Motor Vehicle
Burstow ...	Quarterly (indestructible only)	" " "
Chelsham ...	Monthly	" " "
Crowhurst ...	Monthly	" " "
Godstone ...	Weekly	" " "
Horne	Quarterly (indestructable only)	" " "
Limpsfield ...	Weekly	" " "
Lingfield ...	Weekly	" " "
Nutfield ...	Fortnightly	" " "
Oxted	Weekly	" " "
Tandridge ...	Weekly	" " "
Tatsfield ...	Monthly	Collection by Contractor
Titsey	Monthly	Council's Motor Vehicle

The disposal of refuse is now under the control of the Public Health Committee. All the refuse is removed to the Local Authority's tip at Crowhurst Brick Works except in the case of Tatsfield where it is tipped locally. The Local Authority's tip is maintained by Mr. C. F. Payne, Superintendent of Refuse Disposal, in an entirely satisfactory condition, controlled tipping being carried out on thoroughly sound lines.

(2) **Cesspool Cleansing.** In the parishes of Oxted, Limpsfield and Lingfield this is done by the Local Authority on application only at the cost of the householder. This service is now provided by the Department of the Engineer and Surveyor.

SANITARY INSPECTION.

Annual Statement by Mr. Chas. F. Payne, M.R. San. I.

TABLE 8.

General Inspections	956
Re-Inspections	570
Inspections under Housing Acts	253
Re-Inspections	725
Drainage Inspections	150
Inspections of Slaughter Houses	490
Inspections of Dairies and Cowsheds	470
Number of Sediment Tests of Milk	12
Number of samples of Milk and Ice Cream	78
Inspections of Bakehouses	38
Inspections of Factories and Workshops	30
Inspection of Tents, Vans, etc.	45
Number of Water Certificates granted	123
Drains tested:	
(*a*) By Water	50
(*b*) By Smoke	Nil
Notices served:	
(*a*) Informal	293
(*b*) Statutory	35
Complaints received	96
Samples of Drinking Water tested	7
Samples of Drinking Water submitted for Bacterial and/or Chemical Analyses	15

SUMMARY OF REPAIRS.

Carried out under the supervision of the Public Health Department during the year, as the result of Notices served.

TABLE 9.

Dirty Houses cleaned and limewashed	51
Houses to which :	
Internal repairs to plaster, etc., executed	55
Ventilation and lighting improved	7
Defective windows repaired	54
Dampness in walls remedied	73
Dampness in floors remedied	12
Defective roofs repaired	58
Firegrates repaired or supplied	22
Cooking ranges repaired or supplied	22
Sinks repaired or supplied	11
Sink waste pipes repaired	6
Rain water pipes repaired	42
Eaves gutters provided and repaired	42
Floors repaired or relaid	27
Yard paving provided or repaired	6
Drainage repaired	6
Drains laid	14
Choked drains opened and cleansed	10
Cesspools cleansed	4
Public water supply laid on	7
Water supply protected	1
New sanitary dust bins provided	16
Flushing cisterns to W.C.s repaired or supplied	14
Miscellaneous nuisances abated	27
E.C.s converted to W.C.s	7
Defective coppers repaired	Nil
New pail closet	2
Additional W.C.s provided	Nil
Food store provided or repaired	4
Cesspools abolished and drainage connected to sewer	7
Cesspools provided	6
Extension of water supply to houses	5
Overflows from cesspools cut off	3
Underfloor ventilation provided	2
Defective walls repaired	8
Staircases repaired	1
Defective chimnies repaired	5
Weather boards to doors supplied	1

Pail closet structures repaired	6
W.C. pans provided	4
Verminous premises disinfected	2
W.C. structures repaired	14
Defective doors renewed and repaired	6

Dairies and Cowsheds.

New sheds provided or converted	2
Old sheds disused	1
New or improved drainage provided	10
Floors improved or repaired	13
Yards improved	5
Light and ventilation improved	8
Cooling dairies improved	4
Cooling dairies provided	1
Accumulations of manure removed	1

Air Raid Precautions. At the beginning of the year, Brigadier H. S. Mosley, D.S.O., assumed the duties of Air Raid Precautions Officer. The closest liason has existed between the Air Raid Precautions Officer and the Medical Officer of Health. All the arrangements in connection with the medical aspects of Air Raid Precautions have met with my entire approval.

Smoke Abatement. One complaint was received during the year. It was verified and the persons concerned were warned.

Shops Act, 1934. 12 Shops were inspected during the year. No action was taken regarding them.

Eradication of Bed Bugs. Particulars of action taken for the eradication of bed bugs are given below :—

(1)	(*a*)	Council houses infested	1
	(*b*)	Other houses infested	1

(2) The former was disinfected by means of Cimex, the latter by means of Hawes Block Disinfestator.

(3) No methods were employed for ensuring that tenants are free from vermin before removal to Council Houses.

(4) The work of disinfestation is carried out by the Local Authority.

(5) No special measure are taken by way of supervision or education of tenants to prevent infestation or re-infestation after cleansing.

Schools. On the 2nd July the Local Authority resolved that copies of the Medical Officer of Health's report on schools, contained in the Annual Report for 1936, be sent to the Board of Managers of the Godstone C. of E. School and of Nutfield C. of E. School, to the Surrey Education Committee and to the Board of Education, and that a covering letter be sent by the Medical Officer of Health amplifying the report and pointing out the conditions present.

On the 10th September a letter was presented from the Chief Education Officer of the Surrey County Council in regard to the report of the Medical Officer of Health on Godstone C. of E. School, stating that the Committee had previously taken up with the Managers the question of dealing with certain defects and are again in communication with them in regard to what action they propose to take in making the necessary improvements. On the 31st December the Public Health Committee instructed the Clerk to communicate with the Managers of Godstone and of Nutfield C. of E. Schools and with the Surrey Education Committee enquiring what action has been taken on the Medical Officer of Health's report regarding the condition of the Schools.

Premises and Occupations which can be controlled by Byelaws and Regulations.

(1) Tents, Vans, Sheds.—New Byelaws were confirmed by the Minister of Health on 10th November, 1926, and came into operation on 1st January, 1937.

(2) Offensive Trades.—None.

(3) Mortuaries.—Controlled by the Local Authority's Byelaws, dated May, 1931.

(4) Slaughter Houses:

(*a*) Registered	4
(*b*) Licensed	17

These are controlled by the Local Authority's Byelaws, dated January, 1928.

(5) Hop-pickers.—None.

(6) Houses intended or used for occupation by the working classes and let in lodgings or occupied by members of more than one family to be enforceable in the contributory places of Burstow and Oxted. These are controlled by Byelaws dated 9th February, 1934. Westlands was demolished during the year, thus removing a tenement dwelling that did not conform to these byelaws.

The van dweller is either a survival of, or reversion to, a type which existed in more primitive times when standards of hygiene, education and social conduct were very different from the present. It is difficult to know how many are true Romanys and how many persons who themselves, or whose forebears, have adopted a vagrant life because they like its freedom from the trammels of civilization. Economically they produce little or nothing for the community though they have the benefits which life within a civilized community confers. With the advance of civilisation, order and hygiene in the community, the van dweller finds it more and more difficult to fit into his environment. His stationary mental outlook and hygienic and social conscience estrange him more and more from his progressive and better educated fellow citizens. Thus with the passing years it is likely toleration of the van dweller will grow less.

In the past the provisions contained in the Surrey County Council Act, 1931, have not proved helpful to the Local Authority in controlling moveable dwellings and camping grounds, and their replacement by Section 269 Public Health Act, 1936, might well be considered. It is, however, the van dweller, ever on the move, spending a few nights here or there, who presents the greatest difficulty in control by the Local Authority. Here to-day, gone to-morrow, naturally he has no privy accommodation, no water supply, no facilities for even elementary cleanliness. His van is nearly always overcrowded; his children receive no education to fit them for a useful place in the community; his behaviour is often anti-social and always unhygienic. His transgressions against the public health are many, varying from endangering a public water supply, of which the Local Authority had an instance in November, to leaving rags and litter in his track and selling watercress surreptitiously removed from polluted streams. Since his stay is short anywhere, and shorter still if he thinks the officers of the Local Authority are on his trail, effective action is impossible.

SECTION 4.

Housing.

TABLE 10.

1. *Inspection of Dwelling-houses during the year.*

(1)	(*a*)	Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	467
	(*b*)	Number of inspections made for the purpose	626

(2) (*a*) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 253

(*b*) Number of inspections made for this purpose 283

(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation 18

(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation 120

2. *Remedy of Defects during the Year without Service of formal Notices :—*

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or its officers 102

3. *Action under Statutory Powers during the year :—*

A.—Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936 :—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs 26

(2) Number of dwelling-houses which were rendered fit after service of formal notices :—

(*a*) By owners 22
(*b*) By Local Authority in default of owners ... Nil

B.—Proceedings under Public Health Act :—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 8

(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—

(*a*) By owners 8
(*b*) By Local Authority in default of owners ... Nil

C.—Proceedings under Sections 11 and 13 of the Housing Act, 1936 :—

(1) Number of dwelling-houses in respect of which Demolition Orders were made 9

(2) Number of dwelling-houses demolished in pursuance of Demolition Orders 7

D.—Proceedings under Section 12 of the Housing Act, 1936 :—

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made ... ... Nil

(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit ... ... Nil

4. *Housing Act, 1936—Overcrowding* :

(*a*)—(i) Number of dwellings overcrowded at the end of the year 28

(ii) Number of families dwelling therein ... 31

(iii) Number of persons dwelling therein ... 183

(*b*) Number of new cases of overcrowding reported during the year 2

(*c*) (i) Number of cases of overcrowding relieved during the year 14

(ii) Number of persons concerned in such cases 91

(*d*) Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding ... ... Nil

Some 60 owners of a total of 940 dwellings have applied for particulars of the permitted numbers of occupants of their houses.

Representations under Section 11 Housing Act, 1936, were made to the Local Authority during 1937, regarding the following dwellings as being unfit for human habitation but not capable at a reasonable expense of being rendered so fit :—

TABLE 11.

Locality	No. of dwellings	Action of Local Authority and result of such action
Rennicks, Furzefield Road, Lingfield	1	Unoccupied. Undertaking given by owner not to re-let
Dormans Cottages, Dormansland	2	Demolition Orders made
Malthouse Cottages, Godstone Nos. 1-6	6	Decision of Local Authority pending at the end of the year
Mayfield Cottages, Dormansland Nos. 3-7	5	Decision of Local Authority pending at end of year
Chapel Lane, Dormansland Nos. 1-3	3	Regarding Nos. 1 and 2 undertaking given not to re-let. Demolition Order made regarding No. 3
House occupied by Carrigan, Broadham Green	1	No further action taken—owner carried out necessary works

Representations have been made to the Local Authority during the years 1934, 1935 and 1936 regarding the following dwellings as being unfit for human habitation and not capable at a reasonable cost of being rendered so fit. The subsequent action of the Local Authority and its results are given below for the year 1937 regarding the dwellings still outstanding at the end of the year 1936.

TABLE 12.

Locality	No. of dwellings	Action of Local Authority and result of such action
Old Cottage, The Marsh, Nutfield	1	Necessary works carried out by owner in accordance with undertaking
Long Row, Bletchingley	7	5 demolished, 2 still occupied
Dormers Cottage, Bletchingley	1	Unoccupied. Matter of demolition pending
Little Tilgate, Bletchingley		Unoccupied in accordance with owner's undertaking not to relet
Marlpond Cottage, Outwood	2	Necessary works carried out
The Mint, Bletchingley	2	Unoccupied in accordance with undertaking given by owner not to relet
Brewer Street, Bletchingley	1	Unoccupied in accordance with undertaking given by owner not to relet
Warners Cottages, Nutfield	1	Unoccupied. Matter of demolition pending
2 Beadles Lane, Oxted	1	Remained occupied under owner's undertaking not to relet
Coldharbour, Lingfield	2	One unoccupied, one still occupied

TABLE 12—*continued*

Locality	No. of dwellings	Action of Local Authority and result of such action
1, 2, 3, Saltbox Cottages, also known as Spring Cottages, Oxted	3	Demolition Order made
Melbourne Cottage, The Platt, Dormansland	1	Demolition Order made
Faulkner's Cottage, The Platt, Dormansland	1	Decision of Local Authority pending
1 and 2, Pine Cottages, The Platt, Dormansland	2	Demolition Order made and demolished
Hutments, Nags Hall Hill, Tandridge	4	Unoccupied
Cottage, Place Farm, Bletchingley	1	Unoccupied in accordance with undertaking given by owner not to relet

Applications for Council Houses.

TABLE 13.

	Houses Allotted	No. of live Applictions at 31/12/37	Ag. Lab.	Non-Ag. Labourers
Bletchingley and Nutfield	27	50	4	46
Burstow	—	2	1	1
Chelsham	—	—	—	—
Crowhurst	1	5	1	4
Godstone	3	54	4	50
Horne	—	3	1	2
Lingfield and Dormansland	24	62	6	56
Tandridge	—	9	1	8
Oxted and Limpsfield ...	102	57	1	56
Tatsfield	6	4	—	4
	163	246	19	227

During the year some 11 houses of a good parlour type were built by the Oxted and Limpsfield Cottage Company.

Many Local Authorities have found the services of a trained nurse with a qualification in public health nursing an advantage in the supervision of the tenants of their Council houses. Whether the officer is styled health visitor, or nurse inspector, is immaterial. The function of the officer is advisory in respect of the care of the home. She gives instruction in such important matters as diet, the economics of household management, etc., and can also keep a watchful eye on the manner in which the interiors of the Council's property are treated by the tenants. In times of epidemics she can devote some time to the home visitations of children suffering from infectious disease and to the supervision of contacts. In addition she can assist the Medical Officer of Health in the immunization of children at the elementary schools. She can also assist in the supervision of tuberculous persons on such matters as their infectivity, accommodation and economic circumstances. I consider that there is scope for the useful employment of such an officer on the Council's staff.

SECTION 5.

Inspection and Supervision of Food.

(*a*) *Milk Supply*. There were 77 wholesale cowkeepers, 80 retail cowkeepers and 15 milk purveyors on the Register on 31st December, 1937. Of these 8 were licensed by the County Council as producers of Tuberculin Tested Milk and 37 as producers of Accredited Milk.

The following bacterial analyses were made of the milk produced or sold within the area in 1937, also of ice-cream produced or sold.

Ungraded Milks.

TABLE 14.

Sample No.	Date of Collection	Place at which Collected	Bacteria per 1 c.c.	B.coli present in
1	12.1.37	Producer's Premises	97,000	Nil
2	12.1.37	,, ,,	292,800	1/1000 c.c.
3	20.1.37	,, ,,	10,400	Nil
4	25.1.37	,, ,,	576,000	1/1000 c.c.
5	25.1.37	,, ,,	40,800	1/10 c.c.
6	25.1.37	,, ,,	1,600	Nil
7	4.2.37	Horne School	22,100	1/10 c.c.
8	4.2.37	Smallfield School	84,800	1/100 c.c.
9	4.2.37	Bletchingley School	412,800	1/1000 c.c.
10	18.2.37	Merle Common School	22,800	1/10 c.c.
11	18.2,37	Producer's Premises	61,600	1/10 c.c.
12	18.2.37	Tandridge School	1,840	Nil
13	9.3.37	Baldwins Hill School	30,400	1/10 c.c.
14	9 3.37	Dormansland School	29,600	Nil
15	9.3.37	Lingfield School	23,200	1/10 c.c.
16	9.3.37	Limpsfield School	105,600	1/10 c.c.
17	17.3.37	Producer's Premises	5,440	Nil
18	22.3.37	,, ,,	49,483	1/10 c.c.
19	14.4.37	,, ,,	68,000	1/100 c.c.
20	14.4.37	,, ,,	59,800	1/10 c.c.
21	15.4.37	,, ,,	97,600	1/100 c.c.
22	15.4.37	,, ,,	116,000	1/100 c.c.
23	5.5.37	,, ,,	10,100	Nil
24	6.5.37	,, ,,	90,400	1/100 c.c.
25	10.5.37	Bletchingley School	94,800	1/10 c.c.
26	10.5.37	Smallfield School	480,000	1/1000 c.c.
27	19.5.37	Producer's Premises	126,960	1/1000 c.c.
28	1.6.37	Lingfield School	136,360	1/1000 c.c.
29	1.6.37	Tandridge School	5,600	Nil
30	1.6.37	Merle Common School	13,400	Nil
31	1.6.37	Oxted School	5,400	Nil
32	1.6.37	Baldwins Hill School	98,470	Nil
33	1.6.37	Limpsfield School	154,400	1/1000 c.c.
34	1.6.37	Dormansland School	140,800	1/1000 c.c.
35	16.6.37	Producer's Premises	81,300	1/100 c.c.
36	6.7.37	,, ,,	65,000	1/100 c.c.
37	6.7.37	,, ,,	5,040	Nil
38	1.9.37	Dormansland School	48,000	1/10 c.c.
39	1.9.37	Tandridge School	38,500	Nil
40	1.9.37	Lingfield School	79,000	1/100 c.c.

TABLE 14—*continued.*

Sample No.	Date of Collection	Place at which Collected	Bacteria per 1 c.c.	B.coli present in
41	1.9.37	Baldwins Hill School ...	52,600	1/10 c.c.
42	1.9.37	Outwood School ...	6,800	Nil
43	20.9.37	Godstone School ...	45,200	1/10 c.c.
44	20.9.37	Oxted School	21,100	Nil
45	20.9.37	Bletchingley School ...	75,400	1/10 c.c.
46	29.9.37	Tatsfield School ...	37,080	Nil
47	29.9.37	Merle Common School ...	197,600	1/100 c.c.
48	29.9.37	Producer's Premises ...	7,050	Nil
49	28.10.37	Merle Common School ...	60,300	1/10 c.c.
50	28.10.37	Producer's Premises ...	24,900	Nil
51	28.10.37	Smallfield School ...	80,900	1/10 c.c.
52	22.11.37	Baldwins Hill School ...	13,200	1/10 c.c.
53	22.11.37	Lingfield School ...	178,000	1/1000 c.c.
54	22.11.37	Outwood School ...	8,000	Nil
55	22.11.37	Dormansland School ...	42,400	1/10 c.c.
56	22.11.37	Tandridge School ...	3,880	Nil
57	8.12.37	South Godstone School ...	8,720	Nil
58	8.12.37	South Nutfield School ...	6,400	Nil
59	8.12.37	Smallfield School ...	17,600	Nil
60	8.12.37	Godstone School ...	5,660	Nil
61	8.12.37	Bletchingley School ...	17,600	1/10 c.c.

Designated or Graded Milks.

TABLE 15.

Sample No.	Date of Collection	Place at which collected	Designations	Bacteria per 1 c.c.	B. Coli present in
62	4.2.37	Nutfield School	Accredited	3,840	Nil
63	18.2.37	Chelsham School	Pasteurised	8,400	Nil
64	10.5.37	S. Nutfield School	Accredited	17,400	Nil
65	10.5.37	Horne School	Accredited	23,100	Nil
66	16.6.37	Chelsham School	Pasteurised	27,600	Nil
67	20.9.37	Nutfield School	Accredited	62,400	1/10 c.c.
68	29.9.37	Chelsham School	Pasteurised	7,460	Nil
69	22.11 37	Horne School	Accredited	6.920	Nil
				M.B. Test	Coliform Test
70	4. 2.37	Nutfield School	Accredited	Passed	Passed
71	6. 9.37	Horne School	Accredited	Failed	Present in 3 tubes
72	18. 5.37	Borough of Reigate	Accredited	Failed	Present in 1/100 cc.
73	8.12.37	,, ,,	Accredited	Passed	Passed

Ice Cream.

TABLE 16.

Sample No.	Date of Collection	Place at which collected	Bacteria per 1 c.c.	B. Coli present in
74	18.8.37	Dealer's Premises	350	Nil
75	18.8.37	Producer's Premises	69,320	1/10 c.c.
76	18.8.37	,, ,,	19,600	Nil
77	18.8.37	Tricycle No. 2274	37,800	1/100 c.c.
78	18.8.37	Dealer's Premises	58,800	Nil
79	18.8.37	,, ,,	197,360	1/1000 c.c.
80	18.8.37	Producer's Premises	160,350	1/10000 c.c.

The pasteurisation of milk was reviewed by me in a Memorandum to the Local Authority dated 5th July, 1935. In the intervening years both the facts and the conclusions regarding it have not materially changed. Throughout the year as usual much discussion has revolved round the subject. The Local Authority should bear in mind what is really implied by the advocacy of compulsory pasteurisation. The avowed object of pasteurisation is to make milk "safe." If it be admitted that compulsory pasteurisation is necessary in order to make milk "safe," then it must also be admitted that preventive medicine is unable to prevent the infection of milk at its source, in other words that the veterinary inspection of cows, the inspection of premises, of methods, etc., the education of milk producers, the large capital outlay made by many producers in order to produce better milk, have all been in vain. Before such admission be accepted it behoves the Local Authority, whose chief industry is dairy farming, to consider carefully whether compulsory pasteurisation will be a help or a hindrance to the production of pure and wholesome milk.

A memorandum on "Tests used in the grading of milk as concerns its cleanliness" was prepared by the Medical Officer of Health and submitted to the Local Authority on the 29th January. On the 26th February a letter was presented to the Local Authority from the Surrey Branch of the National Farmers' Union forwarding the following copy of a resolution unanimously passed at the last meeting :—

> "The Surrey Branch of the National Farmers' Union are strongly of the opinion that the substitution of the methylene blue test is extremely detrimental to the interests of all concerned in the improvement of the milk supply. It is convinced

that the plate count test—in spite of its well known limitations —should be used until such time as the methylene blue test can be proved to shew the degree of bacterial infection below the " satisfactory " standard laid down."

The Local Authority resolved that for a period of six months the plate count test be continued. I quite appreciate the well reasoned resolution of the Surrey Branch of the National Farmer's Union. The Memorandum in question is reprodued in Appendix A.

Each sample of milk taken by officers of the Local Authority was submitted to the biological test for tubercle bacilli. In every case the result was negative.

(*b*) The following is a list of the meat surrendered and condemned as being unfit for human food:—

Carcases Inspected and Condemned.

TABLE 17.

	Cattle, excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed (if known) ...		Unk	nown		
Number inspected	136	45	30	77	625
All diseases except Tuberculosis.					
Whole carcases condemned ...	—	1	—	—	3
Cascases of which some part or organ was condemned ...	1	2	—	4	11
Percentage of the number inspected affected with disease other than tuberculosis ...	0.73	7	—	5	2
Tuberculosis only.					
Whole carcases condemned ..	—	3	—	—	4
Carcases of which some part or organ was condemned ...	1	6	—	—	14
Percentage of the number inspected affected with tuberculosis	0.73	20	—	—	3

The matter of slaughter-houses within the District and the disadvantages of their multiplicity is discussed in Appendix B. With some 21 slaughter-houses the inspection of every carcase, which certainly should be done, is not possible.

(*c*) *Food and Drugs (Adulteration) Act, 1928.* This Act is administered by the County Council. The following Table shows the number of samples taken in the District during the year 1937.

TABLE 18.

Articles	Analysed			Adulterated or Deteriorated			Prosecutions	Convictions
	Formal	Informal	Total	Formal	Informal	Total		
Milk	122	8	130	7		7	1	1
Cream								
Butter	1		1					
Cheese								
Margarine								
Lard								
Meat								
Flour								
Tea								
Coffee								
Cocoa								
Sugar								
Sausages	1		1					
Confectionery ...								
Sausage Meat ...								
Wine								
Beer								
Spirits	9		9					
Drugs		1	1					
*Other articles ...	1	2	3					
TOTALS ...	134	11	145	7		7	1	1
*Details of other articles.								
Fruit Drinks ...		2	2					
Ground Almonds ...	1		1					

Factories and Workshops.

TABLE 19.

Trades		Factories	Workshops	Total
Automatic Games	...	1	0	1
Agricultural Engineers	...	1	0	1
Bakeries	...	4	15	19
Boot Repairing	...	2	2	4
Brass Finishing	...	1	0	1
Brick Making	...	2	0	2
Builders	...	2	14	16
Cabinet Makers	...	1	0	1
Carpenters	...	0	0	0
Chemical Manufacturers	...	1	0	1
Coach Builders	...	0	3	3
Cycle Repairers	...	1	1	2
Dressmaking	...	1	2	3
Electrical Engineers	...	0	3	3
Engineers	...	2	0	2
Firewood Cutting	...	1	0	1
Flour Milling	...	4	0	4
Fullers Earth Works	...	2	0	2
French Chalk Grinders	...	1	0	1
Gas Works	...	2	0	2
Jewellers	...	0	3	3
Joinery	...	3	2	5
Laundries	...	2	3	5
Letterpress Printers	...	2	0	2
Millinery	...	0	1	1
Milk Separating	...	1	0	1
Motor Repairers	...	16	6	22
Plumbers	...	0	2	2
Printers	...	1	0	1
Corn Provenders	...	1	0	1
Saddlery	...	0	2	2
Sausage Making	...	2	0	2
Sawmills	...	1	0	1
Smithies	...	0	5	5
Tailoring	...	0	5	5
Upholstery	...	1	0	1
Van Builders	...	0	1	1
Wheelwrights	...	2	0	2
	TOTALS	61	70	131

SECTION 6.

Prevalence and Control of Infectious and other Diseases.

During 1937 65 cases of infectious disease were notified as compared to 76 in 1936. The total of 65 includes 5 notifications of diphtheria as compared to 7; 13 notifications of scarlet fever as compared to 37 in 1936; 9 notifications of pneumonia as compared to 19 in 1936; 4 notifications of typhoid as compared to 1 in 1936 and 24 notifications of dysentery as compared to 4 in 1936.

Diphtheria. This is the seventh year in succession in which the notifications of diphtheria appear at a very low level. Artificial immunization has been continued throughout the District during the year. The following table gives particulars of the work done.

TABLE 20.

	No. Schick Tested	No. who did not attend again	No. Schick Neg.	No. Schick Pos.	No. completely immunized
Lingfield Epileptic Colony ...	80	—	49	31	31
Laleham Orphanage, Oxted ...	29	—	29	—	—
South Godstone C.E. School					
(1) Children of School age	63	3	23	37	34
(2) Children below ,,	—	—	—	—	7
Lingfield C.E. School (Mixed)					
(1) Children of School age	92	2	54	36	31
(2) Children below ,,	—	—	—	—	1
Lingfield C.E. School (Infants)					
(1) Children of School age	43	3	14	26	20*
(2) Children below ,,	—	—	—	—	2*
Oxted C.E. School	99	2	34	63	50
Tatsfield C.E. School... ...	43	—	23	25	20
Smallfield C.C. School ...	48	1	31	16	15*
South Nutfield C.E. School ...	13	—	—	13	12*
Horne Parochial School ...	10	—	7	3	2*
District Hospital	10	—	7	3	1
Children under School Age who attended at Welfare Centres	—	—	—	—	56
Children of School age who attended at Welfare Centres	—	—	—	—	14
	535	11	271	253	296

*In these 2 doses of alum-precipitated toxoid were given. In the remainder 3 doses of toxoid antitoxin mixture.

I must again express my sincere thanks to the Matron, Miss J. D. McLay Smith and to Staff Nurse D. Passby, who by their painstaking assistance have rendered this work possible in the schools during the last ten years. With the proposed formation of the Joint Hospital Board, these two officers will cease to be officers of the Godstone Rural District Council; in addition the work at the hospital has steadily grown with the result that it is increasingly difficult for these officers to continue their assistance at the schools and in fact they have more than once given up their off-duty hours to do so. The appointment of a Health Visitor who would assist at the important work of immunization has been referred to already on a previous page of the report.

Scarlet Fever. The few cases of this disease that occurred during the year were sporadic in character.

Haemolytic streptococcal infections are one of the commonest diseases to which mankind in this country is subject, though streptococcal infections which by reason of the rash are termed scarlet fever and so become notifiable, are relatively uncommon. The rash is simply the accidental response of a person's skin to the toxin of the streptococcus, a response which rarely occurs a second time, since a skin immunity is usually established by the first attack. The latter does not give any but a temporary immunity to the other manifestations of streptococcal infection such as sore throat, etc. Thus it is seen that the hospitalization of clinical scarlet fever cannot affect the incidence of streptococcal infections in a community since only a small minority of these persons suffering from streptococcal infections are hospitalized. The public however in most cases expect clinical scarlet fever cases to be sent to hospital. Many Authorities treat at home mild scarlet fever provided the home circumstances are suitable. Nevertheless no one can tell at first whether a mild case of scarlet fever will or will not develop complications which laborious, if not difficult, to treat at home render the patient infectious for a prolonged period; so hospitalization of scarlet fever still plays a useful role in the care and treatment of the individual.

Typhoid. One of the cases of typhoid was infected while abroad; another case was infected in a neighbouring County Borough; the third case was also traceable to the same source; the fourth case occurred in the southern part of the District; the source of infection was untraceable.

Dysentery. All the 24 cases of dysentery were caused by the Sonne bacillus. 21 of these were notified from the Clerk's Croft Institution of the Surrey County Council. The other 3 cases occurred in various parts of the District. Sonne dysentery was widely prevalent in the south of England during the late Autumn and Winter months. The practitioners in the District were twice informed by circular letter of its presence. The cases notified represented only a fraction of the cases that occurred in the District. Sonne dysentery, as far as it could be investigated from the few notifications received, appears to have no relation to food, water or social conditions. Clinically it is usually mild in character with some fever lasting only a few days. The passage of blood and mucus is not invariable. Two early cases kept under careful observation at the Council's Hospital shewed neither. One case of sudden diarrhoea and vomiting after the consumption of cheese was observed. The only organism isolated was the staphylococcus aureus. Outbreaks of food poisoning due to the staphylococcus aureus are rare, but may be severe in the individual.

Pneumonia.

Arrangements were made at the end of the year with Dr. L. P. Chamberlain, Pathologist to the East Surrey Hospital, Redhill, that all cases of influenzal or septic pneumonia admitted to the Council's Hospital be examined bacteriologically with a view to determining the particular type of pneumococcus causing the disease. There are some 32 different types of pneumococcus known. Approximately 50 per cent. of the cases in this country are either type 1 or type 2. Appropriate sera for the treatment of these types are available. American observations shew that the serum treatment with the appropriate serum, if given sufficiently early, within the first 24 hours or so of the onset of the disease, is of value.

Non-notifiable Infectious Disease. No notable outbreaks occurred during the year.

Measles. In young children below the age of 5, particularly in debilitated or weakly children, measles is a severe disease with a high mortality and serious complications. Convalescent measles serum if given before the fifth day after exposure to infection prevents the disease. Only in such cases as children going up for a scholarship examination or sickly infants is prevention advisable. If the serum is given between the fifth and seventh day, the disease occurs in an attenuated form, giving rise only to trifling symptoms, but giving permanent immunity. At present the supplies of convalescent serum are difficult to obtain. Dr. L. P. Chamberlain, Pathologist to the East Surrey Hospital, Redhill, is, however, attempting to collect a small supply. Adult serum is not so effective and has to be given in approximately double the dose of convalescent serum. Public spirited persons such as boy scouts might be prepared to supply the few millilitres of blood necessary to prepare this serum. Co-operation in the accumulation of stocks of the serum, adult or preferably convalescent, is well worth the consideration of the Local Authority.

Rats and Mosquitos. Seven complaints were received regarding rats. Upon investigation they were forwarded to the County Council for action.

Pathological Investigations. The following were made by Dr. L. P. Chamberlain, Pathologist to the East Surrey Hospital, Redhill, and by the Clinical Research Association, London :—

TABLE 21.

Throat swabs	311
Sputa	30
Blood for agglutination reactions ...	7
Blood for culture of typhoid bacilli ...	3
Specimens of excreta	8

The convenience of having a pathologist reasonably near for consultation and a laboratory where delicate organisms may be sent by hand for investigation is considerable.

Notifiable Diseases (other than Tuberculosis) during the year 1937.

TABLE 22.

Total	Total Cases notified	Cases admitted to Council's Hospital	Total Deaths
Smallpox	—	—	—
Scarlet Fever	13	13	—
Typhoid Fever	4	2	—
Puerperal Pyrexia	3	—	—
Pneumonia	9	4	—
Diphtheria	5	5	—
Erysipelas	6	6	—
Dysentery	24	2	—

Prevention of Blindness. No action was called for during the year under Section 66, Public Health Act, 1925, which was replaced on 1st October by Section 176, Public Health Act, 1936. During the year Circular 1621 of the Ministry of Health dealing with the Prevention of Blindness was received. In consequence the Medical

Officer of Health communicated with the County Medical Officer on 29th September, suggesting the fullest co-operation in the matter. Further action was pending at the end of the year.

Ophthalmia Neonatorum. No cases were notified during the year.

Tuberculosis.

New Cases and Mortality during 1937.

TABLE 23.

Age Periods.	New Cases				Deaths.			
	Respiratory		Non-Respiratory		Respiratory		Non-Respiratory	
	M.	F.	M.	F.	M.	F.	M.	F.
0								
1				1				
5	1		6	2			1	
15					1			
25	1	2	1	1	2	1		
35	2				1	1		
45	1	2			1	2		
55		2				2		
65 and upwards ...	2				1	1		
	7	6	7	4	6	7	1	0

The Public Health (Prevention of Tuberculosis) Regulations 1925.

The Public Health Act, 1925, Section 62.

No action was taken under these sections during the year. Section 62 of the Public Health Act, 1925, has been replaced by Section 172 of the Public Health Act, 1936.

The Public Health (Tuberculosis) Regulations, 1930.

The housing of tuberculous persons was kept under supervision during the year, the closest co-operation existing with the Tuberculosis Officer, Dr. A. H. Campbell. Three persons were found during the year to be housed under unsatisfactory conditions. In one case the dwelling is being dealt with by the Local Authority under the Housing Act, 1936. The second case, a man dwelling in a dilapidated hut, was fully investigated by the Medical Officer of Health and by the Tuberculosis Officer. Eventually it was found that the man was non-infectious. Institutional treatment was offered him by the Tuberculosis Officer, of which he did not avail himself. The third case was an open or infectious case. After some weeks the patient was persuaded to enter an institution where she died.

SECTION 7.

Statement of any such action taken during the year to arouse public interest in the Prevention of Ill-health.

During the year Health Talks continued to be inserted, by the courtesy of the Editors, in the *Surrey Mirror* and in the parish magazines of the ecclesiastical parishes of Bletchingley, Blindley Heath, Dormansland, Limpsfield, Horne, Godstone, Oxted, South Nutfield and Tatsfield, while the Vicar of Tandridge continued to undertake the distribution of the articles to the Mothers' Union and the Women's Institute in the Parish. During the year the Editors of the *Sevenoaks Chronicle* and of the *Kent & Sussex Courier* courteously allowed the Health Talks to be inserted in their newspapers. Towards the end of the year the Vicar of Lingfield kindly consented to accept the Health Talks for his parish magazine. Unfortunately during the year the Rector of Tatsfield found himself unable any longer to make use of these. Altogether 8 articles were written in the year, six of these by the Medical Officer, one by the Medical Officer in collaboration with Dr. T. H. Bingham, Medical Officer of Health for the Borough of Reigate, and one by "Psychologist." It is to be hoped that " Psychologist " will see his way to contribute further articles. In addition 2,000 copies of the Health Talk entitled " Milk at Meals " were reprinted for distribution in the elementary schools, at the request of the Educational Department, Surrey County Council.

In connection with the advancement of immunization against diphtheria at the Infant Welfare Centres, your Medical Officer gave 8 short addresses to the mothers attending these, while he gave one short address on Typhoid Fever, its Causation and Prevention. In February, in conjunction with the Godstone District Care Committee, one lecture was arranged through the National Association for the Prevention of Tuberculosis, Dr. Harley Williams being the lecturer. Though the lecture was well advertised it is regretted that the attendance was poor, which confirms the opinion I have expressed in previous reports that in a Rural District the organised lecture on Health is unlikely to be popular. In October one lecture was given at Blechingley, by Dr. T. R. Robertson, in connection with the British Empire Cancer Campaign.

Health Talks written during the year had the following titles:—

Milk and Meals.
Health and our Teeth.
Cancer
Godstone District Care Committee.
Protection against Diphtheria.
Mental Health of the Child.
Nutrition and Physical Fitness.
Typhoid Fever, its Causation and Prevention.

SECTION 8.

Annual Report for the year ending 31st December, 1937, for the Local Authority's District Hospital (Infectious Diseases).

In the year 1937, 90 patients were admitted as compared with 146 in 1936. Of these 48 were from the Rural District of Godstone and 42 from the Urban District of Caterham and Warlingham. The following tables gives a list of the diseases:—

TABLE 24.

Scarlet Fever ...	19
Diphtheria	33
Erysipelas	4
Typhoid	5
Pneumonia	4
Influenza	3
Measles	5
Streptococcal Tonsillitis	3
Mumps	1
Dysentery	2
Observation	11
	90

Scarlet Fever. 19 cases were admitted. The type of disease was mild except in the case of one patient who was admitted gravely ill with the toxic form. She received at once large doses of anti-streptococcal serum both intravenously and intramuscularly and made an excellent recovery.

TABLE 25.

Complications.

Rhinorrhoea	2
Otitis Media	1

Diphtheria. 33 cases were admitted. 4 of these were dangerously ill with the severe form of the disease caused by the gravis strain of the corynebacterium. They all received on admission large doses of serum both intravenously and intermuscularly. Three, however, died. The importance of the early diagnosis of diphtheria cannot be over emphasiased since the usefulness of serum decreases rapidly after the first 24 hours. The remaining cases were of a moderate degree of severity.

Measles. These were severe with broncho-pneumonia as a complication.

Typhoid. These cases were all severe, one being dangerously ill for many days. Anti-typhoid serum from the Lister Institute was administered within a few hours of admission to the latter. All were progressing well at the end of the year and eventually made good recoveries.

Dysentery. Two cases of Sonne dysentery were admitted. Their symptoms were mild and they were discharged in a few days.

"Return" Cases. With the development of recent knowledge regarding the prevalence of the streptococcal infections the epidemiological importance of the "return" case has become negligible unless the "return" cases occur in profusion. In fact the presence of the "return" case in connection with this hospital is almost unknown, so in the previous reports the "return" case has not figured for some years. This year, however, there was one "return" case, not that I have any reason to suspect that the patient discharged from the hospital was the infector of the "return" case.

Septic Endocarditis. One patient was admitted for observation and died. At the post mortem the cause of death was found to be septic endocarditis.

One patient was advised to seek treatment after discharge for unhealthy tonsils and adenoids.

Sick Staff. During the year one member of the nursing staff was on the sick list for a total period of 14 days while one member of the domestic staff was on the sick list for a total period of 11 days. During the year 4 prescriptions were issued to members of the staff.

Nursing. I must thank the Matron, Miss J. D. McLay Smith, for the high standard of nursing which she has maintained over a period of 10 years. When it is considered that at times there may be 6 or 7 different types of diseases in the hospital, all of which have to be strictly "barrier" nursed, the strain can be realised that is thrown on her and on the nursing staff in the efficient maintenance of "barrier" nursing and the prevention of cross-infection, that bugbear of infectious hospitals. That cross-infection has almost been non-existent at this hospital for 10 years is the highest tribute I can pay to the Matron. Nevertheless I feel that the time is come for a block of 10 cubicles to be erected. The matter was discussed in Appendix C of my Annual Report for 1935, and the necessity with the passing years does not grow less.

Building and Equipment. During the year the buildings were maintained in a satisfactory state of repair. Central heating was installed in both A and B blocks and proved during the winter months most satisfactory. During the year quarterly fire drills were carried out under the direction of Station Officer Whitmore of the Reigate Fire Brigade. The water supply was laid on at the mortuary.

Air Raid Precautions. During the summer a course of lectures and demonstrations were given to the nursing staff by myself and by the Matron, Miss J. D. McLay Smith. At the conclusion of the course an examination was held and all the nursing staff passed. The question of the protection of the hospital against Air Raids will receive the attention of myself and of the Matron in the forthcoming year.

With the proposed formation of a Joint Hospital Board, I must place on record the progressive policy of the Hospital Committee over a period of years. As long ago as 1930 the Committee adopted the recommendations recorded in Appendix B of my Health Report for 1930 regarding the admission of cases—a policy that has enabled the hospital to be used to the fullest advantage of the public health. The policy of the Committee regarding the maintenance of patients has also been one of wisdom. No charge is made unless the person wishes to be admitted as a private patient with special accommodation. This freedom from financial cost, too often with its accompanying worry, encourages patients to seek treatment in the hospital, or their relatives to seek it for them, at the earliest moment when treatment is most likely to be effective and their minds, or their relatives' minds, remain free from such worry whilst they are in hospital. Again patients, or their relatives, are not anxious for their discharge at the earliest possible moment because of expense but are content that they remain till a cure is really effected. It is the role of the hospital to heal the sick not merely to "isolate" them. "The best cure of the body is to quiet the mind."*

I am,
Your obedient Servant,
W. HERBERT BUTCHER,
Medical Officer of Health.

*Napoleon.

APPENDIX A.

Memorandum on Tests Used in the Grading of Milk as Concerns its Cleanliness.

In 1935 the Medical Research Council published a volume consisting of 392 pages dealing with the investigations occupying three years conducted by Professor E. S. Wilson and his Assistants at the London School of Hygiene and Tropical Medicine. The cost of the work was met by a grant from the Empire Marketing Board during the first two years and after the dissolution of that Board by a grant from the Ministry of Health. During the course of the Enquiry Professor Wilson had the advantage of consultation with a Special Committee including representatives of different Government Departments as follows :—

Professor W. W. Jameson, M.D., F.R C.P., London School of Hygiene and Tropical Medicine.
J. F. Blackshaw, O.B.E., Dairy Commissioner, Ministry of Agriculture and Fisheries.
J. L. Brownlee, M.D., Department of Health for Scotland.
T. Carnwath, D.S.O., M.B., D.Sc. Ministry of Health.
J. M. Hammill, O.B.E., M.D., D.Sc. Ministry of Health.
T. Orr, M.D., D.Sc. Public Health Department, Ealing.
W. M. Scott, M.D., B.Sc., Ministry of Health Pathological Laboratory.
A. T. R. Mattick, Ph.D., B.Sc., National Institute for Research in Dairying.

In the report in question attention was given solely to the methods available for determining the cleanliness and keeping quality of milk. **The safety of milk as shewn by the absence of**

pathological organisms was not discussed. The report in question has been described as a laborious one. It deals in the greatest detail with the methods used in the various tests, the scientific data based thereon and the conclusions to be obtained therefrom. The report is highly technical both from the aspect of bacteriology, mathematics and physical chemistry. It is only possible here to summarise the conclusions.

(1) **The Plate Count.** As regards pasteurised milk, though by no means ideal, this test is of some value in determining how far milk has been effectively pasteurised.

As regards other milks " it is impossible to avoid the conclusion that the plate count is an inaccurate and unreliable method of ascertaining the number of organisms in milk. The technique is complex, subject at every stage to errors, the importance of each of which has been the purpose of this enquiry to assess. The final result, which even with a standard technique is correct only within wide limits—estimated at (+ —) 90 per cent.—bears no constant relationship to the total number of bacteria, either alive or dead, in the sample. As a figure therefore it possesses no special significance and its value is purely relative." (Bacteriological Grading of Milk, page 150.)

This conclusion is borne out by observations made by this Local Authority in 1934, where samples of the same milk sent to two different Laboratories showed in one milk 182,800 bacteria and 3,700,000 bacteria and in the other milk 8,960 bacteria and 99,800 bacteria.

(2) **The Coliform Test.** The various coliform strains present in milk are derived either from cow dung or from **imperfectly cleansed, dried, or sterilised milk utensils,** dust in the air of cow byres and other sources of possible milk contamination. There are numerous strains of coliform bacilli, and all strains are not necessarily directly of faecal origin. If it be borne in mind that the test is in no way comparable with the coli test in water and that it is in its present modified form largely empirical it is of some value in indicating the cleanliness under which milk is produced. In addition the absence of coliform strains in milk is of economic importance to the producer.

(3) **Methylene Blue Reduction Test.** This test depends on a natural reducing system present in milk and functioning through the inter-action of various enzymes. "Sterile" raw milk (milk produced under aseptic conditions from a healthy udder and having 37 C. plate count usually less than 100 per m.l.) is completely unable by itself to reduce Methylene Blue under aerobic conditions,

In the presence of bacteria, however, milk is able to effect this reduction, the bacteria acting partly by absorbing dissolved oxygen and so allowing the natural reducing system of milk to function, and partly by the production themselves of substances leading to the establishment of negative potentials. Hence the reduction test has been evolved to afford an index to the degree of bacterial contamination.

In practice the methylene blue test is certainly simpler and less laborious than plate counts and therefore less liable to errors in its performance. Actually its experimental error is said to be very small. The accuracy of any scientific test depends obviously on the care with which it is carried out, whether the test is bacteriological or chemical. It has the further advantage of affording on the whole a very good index of the keeping quality of milk.

(4) **The Sediment Test.** This simple test consists in forcing a pint of milk through a specially prepared cotton pad held in a metal container shaped liked a milk bottle and comparing its colour with that of standard pads. It was first introduced here by Mr. C. F. Payne the Sanitary Inspector in 1926. "This method is of very real value in educating the unhygienic farmer because it presents him with a visiable index of the dirtiness of his milk." (Bacteriological Grading of Milk page 292). There is little question that this test was invaluable in this District at the time of its introduction by Mr. Payne. It is still carried out. For some years the results have been satisfactory in every case. It would appear, therefore, as far as concerns this District, that this test in its present form is losing its usefulness since the farmers here have improved their methods beyond the scope of the test. No systematic observations have been made on this test in the Report under discussion because "However useful those methods may be for particular purposes, their value in routine grading work is generally vitiated by the fact that any farmer can by simple filtration of his milk through layers of muslin remove the greater part of the dirt without of course holding back any appreciable proportion of leucocytes or bacteria present."

In this District we are concerned chiefly with milk sampling at the Producers' premises. It would certainly seem that for such a purpose some investigation into a modification of the sediment test so as to make it more sensitive would be valuable.

On the 6th January I received a letter from the Pathologist, Royal Surrey County Hospital, Guildford, in which he writes:—

> "Re your enquiries re fees for Methylene Blue tests for milk samples, after much argument on all sides, it has been decided that the fee shall be about 3/- for the combined Methylene

Blue and Coli tests. The Methylene Blue reductase test has now, as you are aware, superseded the count, which up to a point at any rate from the labour aspect, is all to the good."

It will be seen therefore that the cost of the two tests has now been reduced from 7/6 to about 3/-. This appears a very reasonable figure and I suggest that the methylene blue reductase test and the coliform test be applied to all samples of ordinary milk taken by the Local Authority and that the test be performed at the Royal Surrey County Hospital.

The testing of milk is of value, in my opinion, to producers from an educative aspect, though its value varies, I fear, inversely with the critical knowledge of the producer. To the Local Authority, the value of the individual sample is little; in bulk, however, the testing of a number of samples over a period throws light on the cleanliness or otherwise of milk production in the District.

The inherent defect in my opinion in the sampling of milk is that any sample is a random sample whether good or bad. The fundamental factor in the production of clean milk is not random satisfactory samples but satisfactory milking methods. If these methods are efficient then one has reasonable confidence in the producer. If his methods are obviously slipshod, or even worse, careless, then the random satisfactory sample is the result of good luck and nothing else.

Conversely the Report in question stresses the fact that too much reliance must not be placed in judging the cleanliness of milk in a single unsatisfactory sample.

W. HERBERT BUTHER,
Medical Officer of Health.

11th January, 1937.

APPENDIX B.

Memorandum on the Standing of Slaughter-Houses in the District.

There are 4 registered slaughter-houses and at the present moment 17 licensed. How these two classes of slaughter-houses originated is of some interest, the diversity depending not on reason but on the date of the establishment of the particular slaughter-houses.

Apart from the mediaeval ordinances to control nuisances, the first act relating to slaughter-houses is the Knackers Act, 1786. The object of this Act, however, was not to guard the public health but to prevent the theft of horses.

That an effective supervision of slaughter-houses was urgently needed during the first half of the nineteenth century is shewn by a contemporary statement of one of the Aldermen of the City of London who describes Smithfield Market as " that sink of filth and cruelty " and the Common Council did have some slight control over Smithfield ! The first Act to deal with slaughter-houses from the aspect of slaughtering for butchers' meat and the protection of the public health is the Town Improvement Clauses Act, 1847. As incorporated in the various Public Health Acts, it remains until to-day the main stay of control over slaughter-houses. Under Section 128, the duty* was imposed to make byelaws regarding the licensing (where this is required), the registering and inspection of slaughter-houses, the prevention of cruelty therein, cleanliness and the removal of filth and the provision of a sufficient water supply.

In Section 126 it is laid down that no place shall be used as a slaughter-house or Knackers Yard which was not in such use and occupation at the time of the passing of the special Act and has so continued ever since unless or until a licence is obtained. It is this section which has created the unfortunate distinction of registered and licensed slaughter-houses, and in it too appears the unhappy phrase " The Special Act."

For the 1847 Act extends only to such towns or districts as shall be comprised in any Act hereafter to be passed which shall declare that this Act shall be incorporated therewith and the incorporating Act is described as the special Act.

Now the provisions of the 1847 Act regarding slaughter-houses were incorporated with many Local Acts and with the Local Government Act, 1858, which Act was wholly repealed and superseded by the Public Health Act, 1875, and these provisions were incorporated in the Public Health Act, 1875, by Section 169, the Public Health Act, 1875, becoming the special Act.

Section 169 of the Public Health Act, 1875, did not apply to Rural Districts except by Order of the Local Government Board. Actually Section 169 was so applied in 1888 to the parishes of

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*On " The Commissioners " who are defined as Commissioners or Trustees or other persons entrusted by a special Act with powers for executing the purposes thereof, their successors are the Urban or Rural Authorities. It must be recalled that in 1847 many Municipal activities such as sewering, water supply etc., were carried out by special bodies appointed for the purpose and not by the Town Council.

Bletchingley, Chelsham, Godstone, Limpsfield, Oxted and Tatsfield. In 1918 Sections 29, 30, 31 of an adoptive Act, the Public Health Acts Amendment Act, 1890, were also similarly applied to the same six parishes. These sections give some additional powers over slaughter-houses, particularly regarding the duration of licences.

By general Order in December, 1924, the Ministry of Health applied Sections 169 and 170 of the Public Health Act, 1875, and Sections 29, 30, 31 Public Health Acts Amendment Act, 1890, to all rural districts so these sections are now in force in all parishes of the District.

The question arises as to the interpretation to be placed on the words "within three months after the passing of such Act," i.e., the Public Health Act, 1875, in the case of an Order of the Ministry of Health investing the Rural District Council with Powers under Section 169 of the Public Health Act, 1875, and upon these words depends the precise effect of the Order upon slaughter-houses then existing. Lumley's Public Health, ninth edition, states "The words must be taken to refer to the date of the operation of the Order." So those slaughter-houses existing in the parishes of Bletchingley, Chelsham, Godstone, Limpsfield, Oxted and Tatsfield, within 3 months of 1st June, 1888, were required to be registered. Those erected after 3 months require licences by the Local Authority and are licensed slaughter-houses. In the remaining parishes of the District, as constituted on 1st January, 1925, the date of operation of the General Order of the Ministry made in December, 1924, was the 1st January, 1925. Slaughter-houses existing in those parishes within 3 months of that date were required to be registered, while those erected after 3 months are licensed slaughter-houses requiring licences. Thus have arisen the two classes of slaughter-houses in the District:—

(*a*) Licensed.

(*b*) Registered.

Both are subject to the Council's byelaws.

(*a*) There are 17 licensed slaughter-houses. The Local Authority has a considerable degree of control over these and as they are only licensed for 12 months at a time the Local Authority has the opportunity from time to time of reviewing the circumstances of each establishment. They will be guided as to the suitability of such slaughter-house by the Memorandum of the Ministry of Health re-issued in 1920 and by their own byelaws. Against refusal to grant a licence appeal lies to Quarter Sessions.

(*b*) There are according to the records at hand 4 registered slaughter-houses. Although these are subject to the Council's byelaws made under Section 128 of the 1847 Act, it has been held that the section does not allow the imposition by Bye-laws of requirements as to the structure of the premises. Anyway unless the premises fall into disuse as a slaughter-house, or the Court directs that slaughtering cease on the premises under Sections 129, 130 of the 1847 Act—a most rare occurrence I should imagine—there appears no means of closing these.

The Sanitary Inspector, Mr. C. F. Payne, has furnished a clear and concise report on the condition of the buildings themselves in the various slaughter-houses. I myself during the last six weeks have visited every slaughter-house in the District once and have visited six a second time whose management was the subject of adverse comment by myself at the first visit. In Mr. Payne's report appeared some 14 slaughter-houses under 50 feet from a dwelling. The Minister of Health in his Memorandum above mentioned advises at least 100 feet. Of these 14 slaughter-houses, three are registered.

I see no object in this multiplicity of small slaughter-houses except for the convenience of butchers.

In some little slaughtering is done, though they must be inspected and watched all the same and their numbers make the inspection of every carcase an impossibilty. As to their management, though I commented adversely on that of six owing to offal and manure being left exposed, attracting flies and wasps and at night rats as well, it is only fair to say that at my second visits conditions were quite unobjectionable in 5 cases and improved in one.

W. HERBERT BUTCHER,

Medical Officer of Health.

28th September, 1937.

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